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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/530,991

10/05/2005

David C Huffman

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23460 7590 01/24/2007

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TWO PRUDENTIAL PLAZA, SUITE 4900
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EXAMINER

NGUYEN, DINH Q

ART UNIT

PAPER NUMBER

3752

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p>10/530,991</p>	<p>Applicant(s)</p> <p>HUFFMAN, DAVID C</p>	
	<p>Examiner</p> <p>Dinh Q. Nguyen</p>	<p>Art Unit</p> <p>3752</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “atomizing fluid cap”, “annular atomizing fluid discharge orifice”, and the “a pair of opposed angled fan atomizing fluid passages” of claim 6 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Furthermore, in Figure 7, reference number 33 shown as a nose portion of the V-shaped cut out 42 but in the specification is defined as a central opening, the only opening in the nose portion is the air discharge orifice 34.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitations: "atomizing fluid cap", "annular atomizing fluid discharge orifice", and the "a pair of opposed angled fan atomizing fluid passages" of claim 6 are not shown in the drawing and not clearly disclosed in the specification.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitations: "atomizing fluid cap", "annular atomizing fluid discharge orifice", and the "a pair of opposed angled fan atomizing fluid passages" of claim 6 are not shown in the drawing and not clearly disclosed in the specification.

6. For the purpose of this Office action, the claims will be examined as best understood by the examiner.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Dalrymple as best understood by the examiner.

Dalrymple discloses a spray device comprising: a body 22 having a liquid discharge passage 189, a spray nozzle assembly 26 affixed to the body 22, the spray nozzle assembly 26 including a liquid spray tip 30 for directing liquid from the liquid passage 189 in the body 22 into a predetermined spray pattern and an air cap 28, the liquid spray tip 30 including a forwardly extending nose portion that defines a liquid discharge orifice 184, the nose extending through a central opening in the air cap thereby defining an annular atomizing air discharge orifice 41 that communicates with an atomizing air inlet 77, a pair of opposed angled fan atomizing fair passages 43/44, a pair of V-shaped cut-out formed by a pair of wings 46, and a valve needle 91 (see figure 4).

9. Claims 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaneko as best understood by the examiner.

Kaneko discloses a spray device comprising: a body 10 having a liquid discharge passage, a spray nozzle assembly affixed to the body 10, the spray nozzle assembly including a liquid spray tip 1 for directing liquid from the liquid passage 8 in the body into a predetermined spray pattern and an atomizing air cap 2, the liquid spray tip 1 including a forwardly extending nose portion 1a/1b that defines a liquid discharge orifice 100, the nose extending through a central opening 4 in the air cap thereby defining an annular atomizing air discharge orifice 4 that communicates with an atomizing air inlet 31/32, the nose extending in a downstream direction past the central opening in the air cap and downstream of the annular atomizing fluid discharge orifice (see column 3, line 36), a pair of opposed angled fan atomizing air passages 2c, and a pair of V-shaped cut-out formed by a pair of wings 2a, and a valve needle 5 (see figure 4).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-5, 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dalrymple or Kaneko.

Dalrymple or Kaneko teaches all the limitations of the claims except for the liquid discharge orifice arranged at least 2mm. or 1mm plus the diameter liquid discharge orifice downstream of the annular atomizing fluid discharge orifice, it would have been an obvious matter of design choice to a person of ordinary skill in the art to provide the

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device of Dalrymple or Kaneko with the liquid discharge orifice arranged at least 2mm. or 1mm plus the diameter liquid discharge orifice downstream of the annular atomizing fluid discharge orifice, because Application has not disclosed that the liquid discharge orifice arranged at least 2mm. or 1mm plus the diameter liquid discharge orifice downstream of the annular atomizing fluid discharge orifice provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either claimed dimensions or the Dalrymple or Kaneko dimensions. Therefore, it would have been an obvious matter of design choice to modify the device of Dalrymple or Kaneko to obtain the invention as specified in claims 1-5, 9-10.


Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to show the art with respect to a spray device: Birkenmaier, Nieburg, and Burns et al.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dinh Q. Nguyen whose telephone number is 571-272-4907. The examiner can normally be reached on Monday-Thursday 6:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Dinh Q Nguyen', with a long horizontal flourish extending to the right.

Dinh Q Nguyen
Primary Examiner
Art Unit 3752

dqn